DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-027049
Date Inspected: 13-Jan-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1530
Location: Jobsite

CWI Name:	As noted below			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: SAS OBG

Summary of Items Observed:

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

12E/PP115/E4 Lifting Lug Hole W4 (Exterior)

This QA Inspector observed QC Inspector Sal Merino utilize a Bridge Cam Gage to measure the fit-up of the 20 mm plate in the BU-4a joint on lifting lug hole W4 at 12E/PP115/E4. This QA Inspector verified the fit-up as acceptable and employed a 65°C Tempilstik to ensure the minimum pre-heat temperature had been achieved. This QA Inspector randomly observed ABF welder Jorge Lopez performing the Shielded Metal Arc Welding (SMAW) process in the (1G) flat position and observed the QC Inspector verify the welding parameters were in accordance with ABF-WPS-D15-1050A-CU. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work was completed on this date and appeared to be in general compliance with the approved WPS and the contract specifications.

12E/13E/E2 Repair (Interior)

This QA Inspector observed ABF welder Jin Pei Wang (ID 7299) pre-heat the joint to 200° F prior to performing SMAW in the 1G flat position on an ultrasonic rejectable indication located on “E2” at 12E/13E on the interior of the OBG. This QA Inspector observed the QC Inspector monitor the inter-pass temperatures and the welding to ensure the parameters were in compliance pertaining to ABF-WPS-D15-1001-Repair. The parameters

were recorded as (Amperes=127) utilizing a 3.2 mm E7018-H4R electrode. This QA Inspector randomly observed the ABF welder grind and blend the start and stop areas of the weld throughout the joints depth. The welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications.

12E/13E/D1/D2 Repair (Exterior)

This QA Inspector randomly observed ABF welder Xiao Jian Wan (Welder ID 9677) performing the repair welding operation of rejectable ultrasonic indications as per the SMAW process in the (4G) overhead position on "D1" at 12E/13E on the exterior of the OBG. The dimensions of the excavation was recorded as; y + 2130 (190mm's in length, 25mm's in width and 19mm's in depth). The dimensions of the excavations on D2 were recorded as; y + 70 (240mm's in length, 30mm's in width and 20mm's in depth), y + 2300 (410mm's in length, 25mm's in width and 25 mm's in depth). This QA Inspector observed QC Inspector Fred Von Hoff perform a Magnetic Particle Inspection (MT) of the excavations to determine the soundness of the metal. This QA Inspector noted that Mr. Von Hoff found no rejectable indications. This QA Inspector observed the QC Inspector monitor the welding and the parameters to ensure compliance with the approved welding procedure. The welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications and this QA Inspector noted that the work is in process.

12E/13E/E1 Repair (Exterior)

This QA Inspector randomly observed the in process welding repair of an ultrasonic rejectable indication on E1 at 12E/13E on the exterior of the OBG. ABF welder James Zhen utilized the SMAW process on the first third (1/3) of the excavation as QC Inspector Fred Von Hoff monitored the welding and the parameters to ensure conformance with ABF-WPS-D1.5-1001-Repair. This QA Inspector noted that the work appeared to be in general conformance with the approved WPS. This QA Inspector randomly observed James Zhen (ID 6001) performing the Flux Core Arc Welding with gas (FCAW-G) process utilizing a "Bug-O" motorized rail system with a magnetic base attached in the (4G) overhead position on face "B" of side plate "E1", at 12E/13E of the OBG. This QA Inspector observed QC Inspector Fred Von Hoff monitoring the welding to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-3000-4-Repair. The parameters were recorded as (A=250/V=24. 6/TS=190/HI=1.94). This QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work is in progress and appears to be in general conformance to the contract requirements.

Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this report. The issues were noted by the QAI and the QA Lead Inspector concurs with the QA report.

Summary of Conversations:

The were no pertinent conversations to report.

WELDING INSPECTION REPORT

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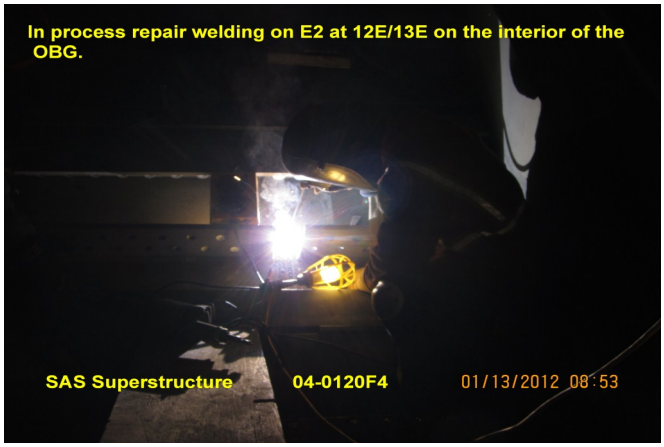

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer